

United States Government

Department of Energy

Oak Ridge Office

# memorandum

DATE: February 6, 2006

REPLY TO


ATTN OF: EM-94:Kadas

SUBJECT: **ASSESSMENT AND ACTION PLANS FOR DEFENSE NUCLEAR FACILITY  
SAFETY BOARD RECOMMENDATION 2004-1, COMMITMENTS 23 AND 25**

TO: Dae Y. Chung, Director, Office of Licensing, EM-24, CLVRLF

Please find attached the Oak Ridge Office (ORO) Environmental Management (EM) final action plans prepared in response to the memoranda dated November 17 and 18, 2005, from Dr. Inés Triay on Commitment 23, Work Planning and Work Control (WP&C); and Commitment 25, Feedback and Improvement (F&I), as identified in the Implementation Plan for the Defense Nuclear Facility Safety Board (DNFSB) Recommendation 2004-1. The attached action plans incorporate comments received from EM-3 on January 26, 2006, and during the 2004-1 WP&C Commitment 23 and F&I Commitment 25 Televideo Conference on January 31, 2006. Also, attached is a compact disk containing the electronic version of the action plans.

If you have any questions, please contact me at (865) 576-0742, Cissy Perkins at (865) 576-2552, or Karen Kadas at (865) 241-2224.

  
Stephen H. McCracken  
Assistant Manager for  
Environmental Management

Attachments

cc w/attachments:

T. Evans, EM-3.2, CLVRLF

T. Krietz, EM-3.2, CLVRLF

K. Kadas, EM-94, ORO

H. Monroe, SE-30, ORO



## **Oak Ridge Office – Environmental Management Site Action Plan**

### **Commitment 25, Feedback and Improvement DNSFB Recommendation 2004-1**

NOTE: Change Control for this Site Action Plan resides with the Assistant Manager for Environmental Management (or designee), with a cc: to EM-3.2.

## Executive Summary

### Evaluation Process

The November 2005 memorandum from U.S. Department of Energy (DOE) Under Secretary David K. Garman provided criteria review and approach documents (CRADs) to be used to assess the status of field office completion of Commitment 25, "Feedback and Improvement," as discussed in the Implementation Plan responding to Defense Nuclear Facilities Safety Board (DNFSB) Recommendation 2004-1. The purpose of this report is to summarize the results of the U.S. Department of Energy (DOE) Oak Ridge Office (ORO) Environmental Management (EM) program evaluation of Commitment 25 and to describe the corrective actions, as necessary, resulting from reviews of these CRADs.

A principle function of an Integrated Safety Management System (ISMS) directly correlates to Commitment 25: to provide feedback and continuous improvement. DOE ORO has in place ORO M100, Oak Ridge Management System Description (MSD) which incorporates the principles of ISMS. Further, the DOE ORO Office of Environmental Management has a Management System Description document which provides a comprehensive high-level description of the roles and responsibilities within the EM organization to manage its work and to manage the contracts under its responsibility. Also incorporating the foundations of ISM, the description of each management system in the EM MSD includes an identification of the requirements associated with that system as well as reference to the processes used by the EM to fulfill those requirements. The EM MSD is consistent with ORO M 100, and it provides the foundation upon which the organization can foster a culture of continuous improvement and effectively integrate the ORO safety philosophy into all aspects of work.

In 2005, each DOE ORO organization conducted a self-assessment of continued compliance with ISMS. Specifically, this self assessment included a review of the following scope elements:

- (1) Work scope, organizational structure, and roles and responsibilities are defined and workers understand their specific job functions.
- (2) For assigned work scope and duties, workers are aware of the specific safety concerns that apply to them (vehicles, plant access, emergencies, etc.)
- (3) For assigned work scope and duties, workers are fully aware of the procedures that they must follow with respect to safety and general requirements of their job.
- (4) Oversight processes which ensure that work is implemented in compliance with defined management controls are implemented.

February 3, 2006  
Site Action Plan  
WP&C Commitment 25 – DNFSB Recommendation 2004-1

- (5) A system is in place and is functioning for providing consistent feedback relating to safety goals and management expectations, for improving performance, and from providing Lessons Learned.
- (6) DOE line management provides effective and formal oversight of their contractor ISMS program to ensure that hazards are analyzed, controls are developed and that feedback and improvement programs are in place and effective.

In September 2005, an independent assessment was conducted of the DOE ORO ISMS program as a whole. This independent assessment was an implementation review of the DOE ORO ISMS using Phase II CRADs derived from DOE Handbook 3027-99, ISMS Verification Team Leader's Handbook, and the DOE Implementation Plan in response to Defense Nuclear Facilities Safety Board (DNFSB) Recommendation 2004-1. The results of the previous self assessments and the following objectives were specifically reviewed:

- DOE's procedures and mechanisms should ensure that work is formally and appropriately authorized and performed safely. DOE line managers should be involved in the review of safety issues and concerns and should have an active role in authorizing and approving work and operations.
- DOE procedures and mechanisms ensure that the hazards are analyzed, controls are developed, and feedback and improvement programs are in place and effective. DOE line managers are using these processes effectively, consistent with ORO FRAM requirements.
- High-reliability principles to establish effective ISM implementation are in place.

Both the self-assessments, as well as the independent assessment, determined that ORO, including EM, continued to effectively implement ISM. The independent assessment stated, in part:

"ORO's ISMS implementation has significantly improved since . . . 2003."

"ORO's self-assessments and contractor reviews accurately depict the state of their respective ISM programs."

Additionally, in October and November 2005, DOE ORO EM conducted Operational Readiness Reviews (ORRs) on projects to be completed by each of two prime contractors: Bechtel Jacobs Company, LLC (BJC) and Foster Wheeler Environmental Corporation (FWENC). These ORRs included independent reviews of DOE ORO EM oversight activities. Management Self Assessments were conducted prior to the initiation of the DOE ORRs. Also, a DNFSB visit occurred in November 2005 which resulted in opportunities for improvement.

During the course of these recent reviews, the feedback and improvement processes utilized by DOE ORO EM and its contractors were thoroughly assessed. As such, in completing the evaluation of the CRADs for Commitment 25, these recent reviews were referenced to demonstrate compliance with each criterion. Corrective actions for issues related to feedback and improvement resulting from the recent reviews have been included.

A Type B investigation is currently underway to evaluate the causes of a recent event. Corrective actions resulting from this investigation will be added to this Site Action Plan, once they have been identified.

### Overall Evaluation Summary

The results of this evaluation determined that DOE-ORO-EM meets the objectives for CRAD-3 with opportunities for improvement noted. BJC and FWENC were found to meet the objectives of CRAD-1 and CRAD-2 opportunities for improvement noted. The following table provides the results of this evaluation.

<u>CRAD #</u>	<u>Objective Met</u>	<u>Objective Partially Met</u>	<u>Objective Not Met</u>	<u>Comments</u>
1	X			2 OFIs noted (1 BJC, 1 FWENC)
2	X			1 OFI noted (1 BJC)
3 (DOE)	X			2 OFIs noted (2 DOE)

This evaluation determined that DOE ORO EM, BJC, and FWENC have programs in place to meet the F&I CRADS when applied to various work being performed at ORO EM projects, and its oversight. The opportunities for improvement noted by this evaluation were generally not the result of a need to align current programs policies or practice to that of the expectations of improved incorporation of integrated safety management and quality assurance into work planning and control processes, but the reasonable maintenance and continual improvement of these items.

Section I-III contains those actions important to improving the effectiveness of ORO EM feedback and improvement. These sections include corrective actions taken and/or planned in response to recent ORRs and ISMS reverification as well as those resulting from reviews of these CRADS

## SECTION I – DOE Oversight

**Performance Objective F&I-3: DOE Line Management Oversight** - DOE line management have established and implemented effective oversight processes that evaluate the adequacy and effectiveness of contractor assurance systems and DOE oversight processes.

### Opportunity for Improvement #1

The DOE ORO ISMS Self Assessment found inconsistent use of the issues tracking system, ORION2, is not supportive of efficient reporting and analysis of assessment results, performance measurement, or timely and effective closure of deficiencies and corrective actions.

DOE Action	Deliverable	Due Date	Owner/Org
EM is participating in the AMESH-led Assessment Improvement Initiative which includes improvements to ORION2 and revision of ORO O 220, Assessments.	Updated ORION system	3/31/2006	Nuclear & Operational Safety Performance Team Lead (Led by the Assistant Manager for Environment Safety and Health)
Train EM technical staff on the use of the updated ORION system.	EM technical staff training	4/30/2006	Nuclear & Operational Safety Performance Team Lead

Responsible Manager: DOE ORO EM Technical Support and Assessment Division Manager

February 3, 2006  
Site Action Plan  
WP&C Commitment 25 – DNFSB Recommendation 2004-1

Opportunity for Improvement #2

The DOE ORO EM ISMS Self Assessment identified a weakness in the flowdown of roles and responsibilities and training requirements.

DOE Action	Deliverable	Due Date	Owner/Org
The AMEM issued a Training Policy requiring technical staff to acquire the appropriate site access training.	ORO EM Site Access Training Policy	9/20/2005 Complete	AMEM
EM Position Descriptions will be reviewed and updated to incorporate MSD and M110 roles and responsibilities.	Updated Position Descriptions	6/30/2006	EM Chief Operating Officer

Responsible Manager: DOE ORO EM Chief Operating Officer

## SECTION II – Bechtel Jacobs Company, LLC (BJC)

**Performance Objective F&I-1: Contractor Program Documentation** - Contractor Line management has established a comprehensive and integrated operational assurance system which encompass all aspects of the processes and activities designed to identify deficiencies and opportunities for improvement, report deficiencies to the responsible managers, complete corrective actions, and share in lessons learned effectively across all aspects of operation.

### Opportunity for Improvement #1

The K-25/K-27 Operational Readiness Review found that the BJC Quality Assurance Program Plan has not been adequately revised to meet DOE requirements.

BJC Action	Deliverable	Due Date	Owner/Org
BJC has submitted a revised QA plan for DOE review.	Revised QA plan	11/30/2005 Complete	QA Program Manager

Responsible Manager: BJC Quality Assurance Program Manager

## Performance Objective F&I-2: Contractor Program Implementation –

**2.1 Assessments & Performance Indicators** - Contractor Line management has established a rigorous and credible assessment program that evaluates the adequacy of programs, processes, and performance on a recurring basis. Formal mechanisms and processes have been established for collecting both qualitative and quantitative information on performance and this information is effectively used as the basis for informed management decisions to improve performance.

**2.2 Operating Experience** - The Contractor has developed and implemented an Operating Experience program that communicates Effective Practices and Lessons Learned during work activities, process reviews, and incident/event analyses to potential users and applied to future work activities.

**2.3 Event Reporting** - Contractor line management has established and implemented programs and processes to identify, investigate, report, and respond to operational events and incidents and occupational injuries and illnesses.



February 3, 2006  
Site Action Plan  
WP&C Commitment 25 – DNFSB Recommendation 2004-1

**2.4 Issues Management** - The Contractor has developed and implemented a formal process to evaluate the quality and usefulness of feedback, and track to resolution performance and safety issues and associated corrective actions.

Opportunity for Improvement #1

The DOE ORR for K-25/K-27 found that corrective action plans were not developed for some post-start findings noted during the contractor Operational Readiness Review (ORR).

BJC Action	Deliverable	Due Date	Owner/Org
1. Prior to completion of the ORR, BJC supplied closure evidence for this issue. The evidence was reviewed and determined to be adequate.	1. Closure evidence	10/31/2005 Complete	Project QA Manager
2. BJC will develop a management tool to make the Manager of Projects and functional managers accountable for their management assessments and encourage them to be proactive in self-identification of issues. Management assessment schedules are to be discussed at the BJC President's staff meeting where the MOPs and functional managers will report on management assessments scheduled, results, and effectiveness of corrective actions on a quarterly basis.	2. Management tool and meeting minutes from President's staff meeting.	4/30/06	BJC Quality Assurance Manager

Responsible Manager: BJC Quality Assurance Manager

### SECTION III – Foster Wheeler Environmental Corporation (FWENC)

**Performance Objective F&I-1: Contractor Program Documentation** - Contractor Line management has established a comprehensive and integrated operational assurance system which encompass all aspects of the processes and activities designed to identify deficiencies and opportunities for improvement, report deficiencies to the responsible managers, complete corrective actions, and share in lessons learned effectively across all aspects of operation.

Opportunity for Improvement #1

The FWENC Contractor ORR found a number of deficiencies with the Corrective Action Management Program such as corrective action reports that were not complete and lack of trend analysis.

FWENC Action	Deliverable	Due Date	Owner/Org
Revise the CAMP procedures to clarify unclear requirements. Train to revised procedures.	Revised procedures.	1/31/2006 Complete	ES&H Manager
Perform trending and issue report.	Trend report	12/31/2005 Complete	ES&H Manager

Responsible Manager: ES& Manager

### Performance Objective F&I-2: Contractor Program Implementation –

**2.1 Assessments & Performance Indicators** - Contractor Line management has established a rigorous and credible assessment program that evaluates the adequacy of programs, processes, and performance on a recurring basis. Formal mechanisms and processes have been established for collecting both qualitative and quantitative information on performance and this information is effectively used as the basis for informed management decisions to improve performance.

**2.2 Operating Experience** - The Contractor has developed and implemented an Operating Experience program that communicates Effective Practices and Lessons Learned during work activities, process reviews, and incident/event analyses to potential users and applied to future work activities.

**2.3 Event Reporting** - Contractor line management has established and implemented programs and processes to identify, investigate, report, and respond to operational events and incidents and occupational injuries and illnesses.

**2.4 Issues Management** - The Contractor has developed and implemented a formal process to evaluate the quality and usefulness of feedback, and track to resolution performance and safety issues and associated corrective actions.

No opportunities for improvement noted at this time.